

REMARKS

Applicants respectfully request examination in view of the instant response. Claims 21-34 remain pending in the case. Claims 21-28 and 30-34 are rejected. Claims 22 and 29 are objected to. Claim 21 is amended herein. No new matter has been added.

ALLOWABLE SUBJECT MATTER

Applicants wish to thank the Examiner for the indication that Claims 22 and 29 would be allowable if rewritten in independent form including the limitations of their base Claims and any intervening Claims.

SPECIFICATION

The title is rejected by the Examiner as not being descriptive of the invention to which the claims are directed. Applicants respectfully assert that the amended title, "METHOD AND SYSTEM FOR IDENTIFYING A PERIPHERAL DEVICE BY A HIGH PRIORITY DEVICE-SPECIFIC NOTIFICATION HANDLER," is descriptive of the invention to which the claims are directed.

35 U.S.C. §112, second paragraph

Claims 21-27 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 21 has been amended herein to provide antecedent basis for the limitation "said system

interrupt notification handler.” Applicants appreciate Examiner’s interpretation of Claim 21 for purposes of furthering the prosecution. Moreover, Applicants wish to point out that the amendments of Claim 21 are corrections to a transcription error from the previously filed Preliminary Amendment (filed on September 22, 2003). Moreover, Applicants respectfully submit that Claims 22-27 overcome the rejection under 35 U.S.C. § 112, second paragraph, as these claims are dependent on an allowable base claim.

35 U.S.C. §102(e)

Claims 21, 23-25, 28 and 30-32 stand rejected under 35 U.S.C. §102(e) as being anticipated by United States Patent 6,460,105 by Jones et al., hereinafter referred to as the “Jones” reference. Applicants have reviewed the cited reference and respectfully submit that the embodiments of the present invention as recited in Claims 21, 23-25, 28 and 30-32 are not anticipated by Jones.

Applicants respectfully direct the Examiner to independent Claim 21 that recites that an embodiment of the present invention is directed to (emphasis added):

A method for identifying a peripheral device detachably coupled to a computer system, said method comprising:
receiving an interrupt from said peripheral device, said peripheral device being coupled to a communications port of said computer system;
responsive to said interrupt, posting an interrupt notification message to alert a high priority device-specific notification

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handler, said high priority device-specific notification handler having a higher priority than a system interrupt notification handler and being capable of directly servicing an interrupt from said peripheral device without involving said system interrupt notification handler; and

servicing said interrupt notification message upon receipt thereof.

Independent Claim 28 recites similar limitations. Claims 23-25 that depend from independent Claim 21 and Claims 30-32 that depend from independent Claim 28 provide further recitations of the features of the present invention.

Jones and the claimed invention are very different. Applicants understand Jones to teach a method and system for transmitting interrupts from a peripheral device to another device in a computer system. In particular, Jones teaches a computer system including an event handler for handling events, also referred to as interrupts, generated by a plurality of different peripheral devices. Moreover, the interrupt message includes the identification of the peripheral device such that an interrupt handling routine is executed depending on the identification of the peripheral device (Abstract).

With reference to Figure 2 of Jones, a computer system is shown having a plurality of ports for receiving interrupts from a plurality of peripheral devices. Each port has an event assembler 8 for generating an event packet to cause an interrupt (col. 3, lines 28-41). Each event packet is receiving at event handler 15 (col. 7, lines 7-9). In particular, there is only one event handler 15, and event handler 15 handles interrupts for all peripheral devices. Specifically, "[t]he

correct interrupt service routine is identified from a table held in the CPU memory by the DEVICE ID and priority indicator bits of the event packet” (col. 8, lines 41-43; emphasis added). Accordingly, Applicants respectfully assert that event handler 15 is not device-specific.

In contrast, embodiments of the claimed invention are directed towards a method for identifying a peripheral device detachably coupled to a computer system including “responsive to said interrupt, posting an interrupt notification message to alert a high priority device-specific notification handler” (emphasis added). As described in the present specification, a high priority device-specific notification handler is able to handle and service an interrupt from a respective peripheral device. The interrupt directly alerts its own high priority notification handler for performing the necessary action appropriate for the device generating the interrupt. Moreover, the device-specific notification handler has a higher priority than the system interrupt notification handler (e.g., the HotSync interrupt notification handler). Specifically, the priority is based on the notification handler rather than the interrupt (page 31, lines 5-16).

Applicants respectfully assert that nowhere does Jones teach, disclose or suggest the claimed embodiments of the present invention as recited in independent Claims 21 and 28, that these claims overcome the rejection under 35 U.S.C. § 102(e), and are in a condition for allowance. Therefore, Applicants respectfully submit that Jones also does not teach, disclose or suggest the

additional claimed features of the present invention as recited in Claims 23-25 that depend from independent Claim 21 and Claims 30-32 that depend from independent Claim 28. Applicants respectfully submit that Claims 23-25 and 30-32 overcome the rejection under 35 U.S.C. § 102(e) as these claims are dependent on an allowable base claim.

35 U.S.C. §103(a)

Claims 26, 27, 33 and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jones in view of United States Patent 5,708,816 by Culbert, hereinafter referred to as the "Culbert" reference. Claims 26 and 27 depend from independent Claim 21 and Claims 33 and 34 depend from independent Claim 28. Applicants have reviewed the cited reference and respectfully submit that the embodiments of the present invention as recited in Claims 26, 27, 33 and 34 are not unpatentable over the combination of Jones and Culbert in view of the following rationale.

As described above, Jones and the claimed invention are very different. Applicants understand Jones to teach a method and system for transmitting interrupts from a peripheral device to another device in a computer system. Jones teaches a computer system including an event handler for handling events generated by a plurality of different peripheral devices. In particular, the event handler of Jones is not device-specific, as it is capable of handling events generated by a plurality of different peripheral devices. Moreover, by

teaching an event handler that is not device-specific, Jones teaches away from a “high priority device-specific notification handler” as claimed.

Moreover, the combination of Jones and Culbert fails to teach or suggest the claimed invention, because Culbert does not overcome the shortcomings of Jones. Culbert, alone or in combination with Jones, does not show or suggest the claim embodiments. Applicants understand Culbert to teach a method and apparatus for interrupt management for a low power PDA. With reference to Figure 1, Culbert teaches an ASIC 102 including a register bank 136 for handling multiple interrupts “such as the insertion or removal of input/output (I/O) devices.” Specifically, Applicants respectfully assert that Culbert does not teach, describe or suggest a “high priority device-specific notification handler” as claimed. Moreover, by teaching a bank of registers for handling multiple interrupts based on the insertion or removal of multiple I/O device, Applicants respectfully assert that Culbert teaches an event handler that is not device-specific, and thus teaches away from a “high priority device-specific notification handler” as claimed.

Therefore, in view of the claim embodiments not being shown or suggested in either Jones or Culbert, in combination with the above arguments, Applicants respectfully submit that independent Claims 21 and 28 overcome the rejection under 35 U.S.C. § 103(a) and are therefore allowable over the combination of Jones and Culbert. Applicants respectfully submit that

the combination of Jones and Culbert also does not teach or suggest the additional claimed features of the present invention as recited in Claims 26 and 27 that depend from independent Claim 21 and Claims 33 and 34 that depend from independent Claim 28. Therefore, Applicants respectfully submit that Claims 26, 27, 33 and 34 overcome the rejection under 35 U.S.C. § 103(a), and are in a condition for allowance as being dependent on an allowable base claim.

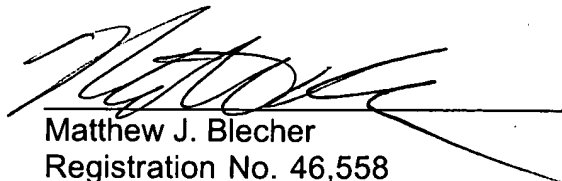
CONCLUSION

Based on the amendments presented above, Applicants respectfully assert that Claims 21-28 and 30-34 overcome the rejections of record and, therefore, Applicants respectfully solicit allowance of these Claims.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,
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